Appl. No. 10/016,864

Amdt. Dated October 21, 2003

Reply to Office Action of July 22, 2003

REMARKS

Reconsideration of the application is requested.

Applicants appreciatively acknowledge the Examiner's confirmation of receipt of applicant's certified copy of the priority documents for the German Patent Application 199 27 054.6, filed June 14, 1999, supporting the claim for priority under 35 U.S.C. § 119(a)-(d).

Claims 1-13 remain in the application.

In the fifth paragraph on page 2 of the above-identified Office Action, claims 1-7 have been rejected as being fully anticipated by U.S. Patent No. 5,926,494 to Pepper (hereinafter '494) under 35 U.S.C. § 102.

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and, therefore, the claims have not been amended to overcome the reference.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful. Claim 1 calls for, *inter alia*:

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A solid-state laser having an active medium for generating a laser beam, comprising:

a resonator;

a plurality of crystal wafers disposed in said resonator and are optically coupled to one another and form a common beam path for the laser beam;

a pumping light source for generating a pumping light beam whose optical axis is collinear with respect to an optical axis of the laser beam, said pumping light source disposed upstream of said resonator; and

at least one lens functioning as an imaging element for focusing the pumping light beam emerging from one of said crystal wafers onto another one of said crystal wafers disposed downstream, said lens disposed within said resonator. (emphasis added).

Therefore, as recited in claim 1, the pumping light beam is generated by the pumping light source and passes between the crystal disk and the laser beam. Importantly, the crystal disk and laser beam are collinear to each other so that an improved use of the pumping light is possible with a longitudinal pumping configuration. The lens thereby serves the purpose of focusing the pumping light beam emitting from a crystal disk onto the next crystal disk disposed downstream from the beam.

The `494 reference discloses a laser system which includes a resonator, a plurality of laser-active media within the

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resonator in the form of a disk, and an imaging lens within the resonator.

However, contrary to the Examiner's assertion in paragraph 6 on page 2 of the Office action, the lens (optical image relay system 42) does not serve the purpose of focusing or imaging the pumping light beam onto the laser-active medium (gain medium). Instead, as stated in col. 9, lines 24 to 27 of the '494 reference, the lens serves the purpose of imaging the laser beam (amplified output signal beam 22) onto the subsequent crystal disk (subsequent gain medium element 26). The pumping beam and the laser beam are not collinear.

Clearly, the '494 reference does not show the improved use of the pumping light in a longitudinal pumping configuration - nor the measures proposed for its solution - i.e., the collinearity between a pumping light beam and a laser beam and the imaging of the pumping light beam through a lens as is recited in claim 1 of the instant application.

In the third paragraph on page 3 of the above-identified Office Action, claims 8 and 9 have been rejected as being obvious over the '494 reference in view of U.S. Patent No. 5,553,088 to Brauch et al. (hereinafter '088) under 35 U.S.C. § 103.

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In the first paragraph on page 4 of the above-identified Office Action, claims 10 - 13 have been rejected as being obvious over the '494 reference in view of U.S. Patent No. 5,148,441 to Itai (hereinafter '441) under 35 U.S.C. § 103.

Considering the deficiency of the '494 reference, as previously discussed, it is believed not to be necessary at this stage to address the secondary '088 or '441 references applied in the rejection of clams 8 - 13, and whether or not there is sufficient suggestion or motivation with a reasonable expectation of success for modifying or combining the references as required by MPEP § 2143.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 1.

In view of the foregoing, reconsideration and allowance of claims 1 - 13 is solicited.

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In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

If an extension of time is required for this paper, Petition is herewith made.

Please charge any other fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,

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For Applicant(s)

SDS

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